Amendments to the Specification:

Please replace the Sequence Listing filed on August 22, 2000, with the following substitute Sequence Listing.

In the Title:

Please replace the title with the following rewritten title:

METHODS FOR INCREASING OLEIC ACID CONTENT IN SEEDS FROM TRANSGENIC PLANTS CONTAINING A MUTANT DELTA 12 DESATURASE

Please replace Table 1 at page 17, with the following amended Table 1:

TABLE 1
Amino Acid Sequence Conserved Between
Plant Microsomal Delta-12 Desaturases and Microsomal and
Plastid Delta-15 Desaturases

Region	Conserved AA Positions in SEQ ID NO:2 of USSN 08/262,401	Consensus Conserved AA Sequence in Δ^{12} Desaturases	Consensus Conserved AA Sequence in Δ^{15} Desaturases	Consensus AA Sequence
A	39-44	AIPPHC (SEQ ID NO:18)	AIPKHC (SEQ ID NO:19)	AIP(P/K)HC (SEQ ID NO:20)
B	86-90	WP(L/I)YW (SEQ ID NO:21)	WPLYW (SEQ ID NO:22)	WP(L/I)YW (SEQ ID NO:21)
C	104-109	AHECGH (SEQ ID NO:23)	GHDCGH (SEQ ID NO:24)	(A/G)H(D/E)CGH (SEQ ID NO:25)
D	130-134	LLVPY (SEQ ID NO:26)	ILVPY (SEQ ID NO:27)	(L/I)LVPY (SEQ ID NO:28)
E	137-142	WKYSHR (SEQ ID NO:29)	WRISHR (SEQ ID NO:30)	W(K/R)(Y/I)SHR (SEQ ID NO:31)
F	140-145	SHRRHH (SEQ ID NO:32)	SHRTHH (SEQ ID NO:33)	SHR(R/T)HH (SEQ ID NO:34)
G	269-274	ITYLQ (SEQ ID NO:35)	VTYLH (SEQ ID NO:36)	(I/V)TYL(Q/H) (SEQ ID NO:37)
H	279-282	LPHY (SEQ ID NO:38)	LPWY (SEQ ID NO:39)	LP(H/W)Y (SEQ ID NO:40)
I	289-294	WL(R/K)GAL (SEQ ID NO:41)	YLRGGL (SEQ ID NO:42)	(W/Y)L(R/K)G(A/G)L (SEQ ID NO:43)
J	296-302	TVDRDYG (SEQ ID NO:44)	TLDRDYG (SEQ ID NO:45)	T(V/L)DRDYG (SEQ ID NO:46)
K	314-321	THVAHHLF (SEQ ID NO:47)	THVIHHLF (SEQ ID NO:48)	THV(A/I)HHLF (SEQ ID NO:49)
L	318-327	HHLFSTMPHY (SEQ ID NO:50)	HHLFPQIPHY (SEQ ID NO:51)	HHLF(S/P)(T/Q)(I/M)PHY (SEQ ID NO:52)

Please replace Table 2 at page 29, with the following amended Table 2:

TABLE 2
Alignment of Amino Acid Sequences of Cloned Canola
Membrane Bound-Desaturases

Desaturase Gene	Sequence[a]	Position[b]
Canola-FAD2-D	HECGH (SEQ ID NO:53)	110
Canola-FAD2-F	HECGH (SEQ ID NO:53)	110
Canola-FAD6[c]	HDCAH (SEQ ID NO:54)	171
Canola-FAD3[d]	HDCGH (SEQ ID NO:55)	97
Canola-FAD7[e]	HDCGH (SEQ ID NO:55)	126

[a]One letter amino acid code; conservative substitutions are underlined
[b]Position in gene product of first amino acid
[c]FAD6 = Plastid delta-12
[d]FAD3 = Microsomal delta-15
[e]FAD7 = Plastid delta-15

Please replace the paragraph beginning at page 30, line 27 through page 31, line 23, with the following amended paragraph:

EXAMPLE 3
CONSTRUCTS FOR DOMINANT NEGATIVE SUPPRESSION
OF DELTA-12 FATTY ACID DESATURASE

The vector pZS212 was used to construct plasmids for dominant negative suppression experiments. One construct was prepared by inserting the full-length mutant D gene coding sequence (nucleotides 1 to 1155 of SEQ ID NO:3) in sense orientation between the phaseolin promoter and phaseolin 3' poly A region of plasmid pCW108. The pCW108 vector contains the bean phaseolin promoter and 3' untranslated region and was derived from the commercially available pUC18 plasmid (Gibco-BRL) via plasmids AS3 and pCW104. Plasmid AS3 contains 495 base pairs of the bean (Phaseolus vulgaris) phaseolin (7S seed storage protein) promoter starting with 5'-TGGTCTTTTGGT-3' (SEQ ID NO:56) followed by the entire 1175 base pairs of the 3' untranslated region of the same gene (see sequence descriptions in Doyle et al., (1986) *J. Biol. Chem.* 261:9228-9238 and Slightom et al., (1983) *Proc. Natl. Acad. Sci. USA*, 80:1897-1901. Further sequence description may be found in WO 9113993) cloned into the Hind III site

of pUC18. The additional cloning sites of the pUC18 multiple cloning region (Eco RI, Sph I, Pst I and Sal I) were removed by digesting with Eco RI and Sal I, filling in the ends with Klenow and religating to yield the plasmid pCW104. A new multiple cloning site was created between the 495bp of the 5' phaseolin and the 1175bp of the 3' phaseolin by inserting a dimer of complementary synthetic oligonucleotides consisting of the coding sequence for a Nco I site (5'-CCATGG-3') followed by three filler bases (5'-TAG-3'), the coding sequence for a Sma I site (5' CCCGGG-3'), the last three bases of a Kpn I site (5'-TAC-3'), a cytosine and the coding sequence for an Xba I site (5'-TCTAGA-3') to create the plasmid pCW108. This plasmid contains unique Nco I, Sma I, Kpn I and Xba I sites directly behind the phaseolin promoter.

Please replace the paragraph beginning at page 33, line 10, with the following amended paragraph:

- Sac I site (5'-GAGCTC-3') followed by more additional bases (5'-GTCGACGAGG-3') (SEQ ID NO:57). The 5' end of BR58 had additional bases (5'-GAGCTC-3') followed by bases corresponding to a Nco I site (5'-CCATGG-3') followed by additional bases (5'-AGATCTGGTACC-3') (SEQ ID NO:58).